Famciclovir for Feline Herpesvirus?

No antiviral drugs are approved in the United States for treatment of FHV-1. Anecdotal reports have recently emerged, however, in which famciclovir, a prodrug of the antiviral drug penciclovir, has been used



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to treat cats with this virus. This study was performed to evaluate the pharmacokinetics and safety of penciclovir following its administration in healthy cats. Eight cats were included in the 2-phase study. In phase 1, a single oral dose of 62.5 mg of famciclovir was given to each cat (9-18 mg/kg). Phase 2 consisted of a multiple

dose trial in which 62.5 mg of famciclovir was given orally every 8 hours (n=4 cats) or every 12 hours (n=4 cats) for 3 days. Physical examinations were performed before each phase and twice daily during phase 2. Complete blood count, serum biochemical profile, and urinalysis were done before the study and 6 to 8 hours after the last administration of famciclovir. Plasma penciclovir concentrations were measured at fixed times after famciclovir administration. Famciclovir appeared to be well tolerated by the cats, with no clinically apparent adverse effects noted. Plasma penciclovir concentrations, however, suggested nonlinear pharmacokinetics or interindividual variability and were notably lower than the in vitro concentrations required for activity against FHV-1.

COMMENTARY: With FHV-1 as a major cause of respiratory and ocular disease in cats, it is frustrating to have so few options for treatment. Many of the antiviral agents used in humans either have poor bioavailability or low efficacy against FHV-1 in cats, or are toxic when administered systemically. In vitro studies of penciclovir done previously seemed promising for efficacy against FHV-1, but this in vivo study seems to indicate that the pharmacokinetics in cats is complex and requires further study.—*Jennifer L. Schori, VMD*

Pharmacokinetics and safety of penciclovir following oral administration of famciclovir to cats. Thomasy SM, Maggs DJ, Moulin NK, Stanley SD. **AM J VET RES** 68:1252-1258, 2007.